

Title (en)

ELECTRO-OPTIC SEMICONDUCTOR DEVICES AND METHOD FOR MAKING THE SAME

Title (de)

ELEKTROOPTISCHE HALBLEITERVORRICHTUNGEN UND IHR HERSTELLUNGSVERFAHREN

Title (fr)

DISPOSITIFS ELECTRO-OPTIQUES SEMI-CONDUCTEURS ET PROCEDES DE FABRICATION CORRESPONDANTS

Publication

EP 1099283 B1 20030226 (EN)

Application

EP 99933056 A 19990715

Priority

- GB 9902285 W 19990715
- GB 9815573 A 19980718

Abstract (en)

[origin: WO0004616A1] An electro-optic semiconductor device (2) comprising a semiconductor waveguide (14) with a core region (12) within which is located at least one active area (4) wherein the core (12) of the waveguide (14) outside of the one or more active areas (4) are not contaminated by diffuse active area material and the one or more active area(s) and the waveguide are monolithic and are grown in an additive growth process. Also provided is a method of making an electro-optic semiconductor device (2), comprising the steps of: growing a first part of a core layer (12) of a semiconductor waveguide (14), selectively growing an active layer (8, 10) over a partial area of the first part of the core layer, and growing a second part of the core layer of the semiconductor waveguide over the first part and the active layer, characterised in that the method comprises an additive growth process.

IPC 1-7

H01S 5/026; H01S 5/343; H01L 27/15; H01L 31/12; H01L 21/20

IPC 8 full level

G02B 6/12 (2006.01); **H01L 27/15** (2006.01); **H01L 31/12** (2006.01); **H01S 5/026** (2006.01); **H01S 5/343** (2006.01)

CPC (source: EP KR US)

G02B 6/12004 (2013.01 - EP US); **H01S 5/00** (2013.01 - KR); **H01S 5/026** (2013.01 - EP US); **G02B 2006/12173** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0004616 A1 20000127; AT E233442 T1 20030315; AU 4923199 A 20000207; CA 2338065 A1 20000127; DE 69905580 D1 20030403; DE 69905580 T2 20030904; EP 1099283 A1 20010516; EP 1099283 B1 20030226; ES 2189444 T3 20030701; GB 9815573 D0 19980916; JP 2003517714 A 20030527; KR 100634217 B1 20061016; KR 20010071948 A 20010731; TW 449935 B 20010811; US 6630693 B1 20031007

DOCDB simple family (application)

GB 9902285 W 19990715; AT 99933056 T 19990715; AU 4923199 A 19990715; CA 2338065 A 19990715; DE 69905580 T 19990715; EP 99933056 A 19990715; ES 99933056 T 19990715; GB 9815573 A 19980718; JP 2000560643 A 19990715; KR 20017000719 A 20010117; TW 88112434 A 19990722; US 74344601 A 20010110